APPENDIX I

SPECIFICATION AMENDMENTS:

Amend the specification of the application as set forth the following:

Page 11, lines 7-14, please rewrite the paragraph as follows:

50 kg steatite (magnesium silicate)-rings haing an outer diameter of 8 mm, a length of 6 mm and a wall thickness of ~~1,5~~1.5 ~~mm~~ were heated to 160 °C in a coating pan and spray-coated with asupsension of ~~28,6~~28.6 kg anatase having a BET surface of $20m^2/g$, ~~2,19~~2.19 kg vanadyl oxalate, ~~0,1760~~0.176 kg cesium sulphate, ~~44,1~~ 44.1 kg water and ~~9,14~~9.14 kg formamide until the weight of the appliedcoating yielded ~~10,5%~~10.5% of the total weight of the catalyst (after caclination at 450 °C).

Page 11, lines 15-18, please rewrite the paragraph as follows:

The catalytic coating thus applied, i.e. the catalyst shell, consisted of ~~4,0~~ 4.0 percent by weight vanadium (calculated as V_2O_5), ~~0,4~~ 0.4 percent by weight cesium (calculated as Cs) and ~~95,6~~ 95.6 percent by weight titanium dioxide.

Page 11, lines 21-29, please rewrite the paragraph as follows:

50 kg steatite (magnesium silicate) –rings having an outer diameter of 8 mm, a length of 6 mm and a wall thickness of ~~1,5~~1.5 mm were heated to 160 °C in a coating pan and spray-coated with a suspension of ~~28,6~~28.6 kg anatase having a BET surface of 20 m^2/g, ~~4,11~~ 4.11 kg vanadyl oxalate, ~~1,03~~1.03 kg aantimony trioxide, ~~0,1790~~0.179 kg ammonium dihydrogenphosphate, ~~0,0450~~0.045 kg cesium sulphate, ~~44,1~~ 44.1 kg water and ~~9,14~~9.14 kg formamide until the weight of the applied coating yielded ~~10,5%~~10.5% of the total weight of the catalyst (after calcination at 450 °C).

Page 11, lines 30-35, please rewrite the paragraph as follows:

The catalytic coating thus applied, i.e. the catalyst shell, consisted of ~~0,150~~0.15 percent by weight phosphorus (calculated as P), ~~7,5~~7.5 percent vanadium (calculated as V_2O_5),

~~3,2~~3.2 percent by weight antimony (calculated as Sb_2O_3), ~~0,1~~ 0.1 percent by weight cesium (calculated as Cs) and ~~89,05~~89.05 percent by weight titanium dioxide.

Page 11, lines 40-47, page 12, lines 1-5, please rewrite the paragraph as follows:

A tube bundle having an external diameter of d_{RBa} = 5.435 m was located in the reactor of the present invention. The tube bundle consisted of about 14,000 catalyst tubes made of steel which each had a length of 3.5 m and an external diameter d_a was thus 1.3793. 4 standard m^3/h of air having a loading of 98.5% purity by weight o-xylene of 90 g/standard m^3 were passed through the tube from the top downward. The ~~etalyst~~ catalyst tubes were filled in a manner to provide for two catalyst zones with different activity. Firstly, catalyst II was filled into each tube to a total height of (as measured from the bottom of the tubes) of ~~1,3~~1.3 m. Then a total ~~1,7~~1.7 m catalyst I was filled into each tube on top of the catalyst II layer.

Page 4, first paragraph, line 2, please rewrite the paragraph as follows:

We have found that this object is achieved by the multitube reactor ~~having the features of claim 12~~ as described herein. According to the present invention, it is proposed that in the case of relatively large reactors in which a large amount of heat of reaction is generated owing to the numerous catalyst tubes and has to be removed, the ratio of tube spacing *t* to external tube diameter d_a be made dependent on the reactor diameter or on the external tube bundle diameter d_{RBa}. In particular, the present invention proposes providing a ratio of tube spacing *t* to external tube diameter d_a of at least 1.3. Preferably, the catalyst tubes are arranged such that three adjacent tubes form a triangle, preferably a equilateral triangle. In this case, tube spacing *t* is equal to the length of the sides of the triangle.

Delete the abstract and enter this in its stead:

~~The present invention relates to a~~ A multitube fixed bed reactor and the use of such a reactor for carrying out catalytic gas-phase reactions, in particular for carrying out

exothermic and endothermic catalytic gas-phase reactions such as the preparation of phthalic anhydride (PA), acrylic acid, methacrylic acid (MAA), acrolein, maleic anhydride (MA), glyoxal, phosgene, hydrocyanic acid or vinyl formamide (VFA). In a relatively large multitube reactor in which a large amount of heat of reaction is generated owing to the numerous catalyst tubes (17) and has to be removed, it is proposed that the ratio of tube spacing t to external tube diameter d_a be made dependent on the reactor diameter or on the external tube bundle diameter d_{RBa}. At an external diameter of the catalyst tube bundle (18) of more than 4 meters, a ratio of tube spacing d to external tube diameter d_a of at leaset 1.3 is preferred.

Claim Amendments :

Amend claim 12 as set forth in the following listing of claims:

1-11. (canceled)

12. (currently amended) A multitube reactor (13) which has a catalyst tube bundle (18) comprising numerous parallel catalyst tubes (17) arranged within an outer wall (15), said catalyst tube bundle (18) having from 10,000 to 50,000 catalyst tubes (17), and having means for introducing and discharging a heat transfer medium said means being adapted such that the heat transfer medium, is essentially conveyed radially or transversely around the catalyst tubes, wherein the ratio t/d_a of tube spacing t to the external diameter d_a of a catalyst tube is in the range from 1.3 to 1.6.

13. (previously presented) A multitube reactor as claimed in claim 12, wherein the ratio t/d_a of tube spacing t to the external diameter d_a of a catalyst tube (17) rises with increasing transverse dimensions of the catalyst tube bundle (18).

14. (previously presented) A multitube reactor as claimed in claim 12, wherein the catalyst tube bundle (18) has an essentially circular cross section having an external diameter d_{RBa} of more than 4 m.

15. (previously presented) A multitube reactor as claimed in claim 14, wherein the external diameter d_{RBa} of the catalyst tube bundle (18) is from 4 m to 12 m.

16. (previously presented) A multitube reactor as claimed in claim 15, wherein the external diameter d_{RBa} of the catalyst tube bundle (18) is from 4 m to 10 m and the

ratio t/d_a of tube spacing t to the external diameter d_a of a catalyst tube (17) is in the range from 1.3 to 1.5.

17. (previously presented) A multitube reactor as claimed in claim 12, wherein the catalyst tube bundle (18) has an essentially rectangular cross section with a tube bundle depth d_{RBt} measured parallel to the flow direction of the heat transfer medium of at least 1.3 m.

18. (previously presented) A multitube reactor as claimed in claim in claim 17, wherein the depth d_{RBt} of the catalyst tube bundle (18) is from 1.3 to 4 m.

19. (previously presented) A multitube reactor as claimed in claim 12, wherein the reactor is divided, in the longitudinal direction of the catalyst tubes (17), into a least two zones (36,37), with a flow of heat transfer medium of different temperature being provided in each zone.

20. (withdrawn, previously presented) A method for carrying out a catalytic gas-phase reaction, said method comprising introducing gas-phase reactants to the multitube reactor as claimed in claim 12.

21. (withdrawn, previously presented) A method for carrying out a catalytic gas-phase reaction as claimed in claim 20, wherein the reaction is an oxidation reaction.

22. (withdrawn, previously presented) The method of claim 21, wherein a phthalic anhydride, maleic anhydride, acrylic acid, acrolein, methacrylic acid, glyoxal, phosgene, hydrocyanic acid or vinyl formamide is prepared.

23. (withdrawn, previously presented) The method of claim 21, wherein a phthalic anhydride is prepared.

24. (withdrawn, previously presented) The method of claim 22, wherein heat transfer medium is conveyed radially or transversely around the catalyst tubes in a meandering path.

25. (withdrawn, previously presented) The method of claim 24, wherein the heat transfer medium is a salt melt and flows at from 10,000 to 20,000 m^3.

26. (previously presented) A multitube reactor as claimed in claim 12, wherein said means for introducing and discharging a heat transfer medium are adapted so as to direct the heat transfer medium in a meandering path.

27. (previously presented) A multitube reactor as claimed in claim 12, wherein said catalyst tube bundle has from 10,000 to 30,000 catalyst tubes.